Flood Protection Corridor Program
Project Evaluation Criteria
And Competitive Grant Application

II. General Information

Project Name: Santa Maria Creek Flood Protection Corridor (SMCFPC)

Project Location:

The Santa Maria Creek is located in the Santa Maria Valley, on the outskirts of the community of Ramona in **west-central San Diego County, CA**, approximately 35 miles from downtown San Diego. The project is within the 8,000 acre *Ramona Grasslands Wildlife Area*.

Driving Directions: Most of the project can be viewed from existing public roads. From Interstate 8 in San Diego, travel north on Highway 67 approximately 30 miles. At the intersection of Highland Valley Road, turn left. The core of the grassland reserve and the project is approximately two miles from the intersection.

Topography Maps: USGS San Pasqual Quadrangle. The creek is in Township T.13 S, and spans Ranges R.1 W and R.1 E. Z

Sponsoring non-profit organization:

The Nature Conservancy
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Grant Request Amount: $2.6 million

Submittal Date: February 14, 2003

Project Objective(s):

Approximately seven miles of the Santa Maria Creek flows westward across the proposed 8,000-acre Ramona Grasslands Wildlife Area (Wildlife Area)[1]. Approximately four of the seven miles of creek are within the FEMA Special Flood Hazard Area floodplain. There have been repeated occurrences of flooding along the Santa Maria Creek, with as many as 200 homes suffering damage from a single flood event. This project, the Santa Maria Creek Flood Protection Corridor (SMCFPC), will provide flood protection to current and future residents of the Ramona community by preserving over 114 acres of the Santa Maria Creek floodplain and an additional 212 acres buffering the floodplain. As a secondary benefit, this project will preserve critical habitat for threatened and endangered species and further the implementation of the Wildlife Area, which also includes the preservation of important Native American cultural resource sites. The project will provide tertiary benefits to agriculture through the development of best management practices for grazing; conservation-compatible grazing regimes need to be identified in this semi-arid region, to maintain habitat quality for the federally endangered Stephens' kangaroo rat, and to manage invasive pest plant species.

The Santa Maria Creek is the ecological centerpiece of the Wildlife Area. The creek emerges from the rapidly urbanizing community of Ramona, then flows across an extensive grasslands/oak savanna, and onward through the coastal scrub and chaparral covered slopes of Bandy Canyon to the San Pasqual Valley. There, the creek joins the San Dieguito River, which feeds Lake Hodges, a drinking water reservoir recently designated as a Clean Water Act Section 303 (d) impaired water body.

The Wildlife Area is largely undeveloped at this time and is being used primarily for grazing cattle. However, development proposals are pending which, if constructed, would add as many as 500 new homes to the Wildlife Area within the next three to five years. Because of the diversity and sensitivity of its native species and the importance of its Native American cultural sites, preservation of the Wildlife Area is a priority for The Nature Conservancy (TNC), the County of San Diego, the U.S. Fish and Wildlife Service, the CA Department of Fish and Game and other conservation partners.

TNC has been working with the property owners in the area and has identified willing sellers interested in selling all or a portion of their property for conservation. TNC has begun to acquire property within the floodplain of the Wildlife Area, most recently obtaining an option to purchase the Cagney Trust property. Previously identified public and private funds will be used by TNC to purchase the Cagney Trust property, which is expected to close escrow this spring. Other complementary actions to preserve land within the floodplain have occurred. For example, working in partnership with TNC, the County of San Diego recently won a $1.5 million grant, the primary purpose of which is to restore 1.5 miles of the Santa Maria Creek through the Cagney Trust property and the Vorhees Lane properties (*Map 1*). While much progress has occurred, there is much more that must be done to both protect residents from flooding and preserve this important Wildlife Area.

The SMCFPC will provide funds to help preserve additional FEMA floodplain properties within the Wildlife Area. Funds from the FPCP Grant will be leveraged with other funds to acquire real property interests in at least two properties. Proposed for acquisition are properties where the owners have indicated their willingness to participate in this Flood Protection Corridor Program.

[1] As defined in a CA Department of Fish and Game Conceptual Area Protection Plan (CAPP).

These include Oak Country Estates (a legal parcel of approximately 300 acres out of the total ownership of 700 acres) and the Hobbs property (44 acres)[2] (*Map 1*).

By acquiring real property interests in this rural flood protection corridor in advance of imminent urbanization, the SMCFPC is a proactive approach to controlling future flood damage.

Applicability to proposed Section 497.7 of Title 23, California Code of Regulations, Division 2

This application includes all items specified in the regulation cited above, with the exception of item (a)(9) Hydrologic and Hydraulic analysis (*Section 497.7 Checklist; Appendix IX*). Should this grant be funded, a detailed analysis by a civil engineer or Professional Hydrologist for Surface Water will be conducted on the Santa Maria Creek. Significant evidence of historical flooding is presented in this application (*Section IV.A.2.*).

III. Minimum Qualifications

A. The project proposes to use any granted funds for protection, creation, and enhancement of flood protection corridors *[Water Code Section 79037(b)]*.

Acquisition of real property in the floodplain along Santa Maria Creek will (i) prevent potential flood damage and (ii) prevent degradation to the SMCFPC that would likely result from increased development in the area (*See Map 1*).

B. A local public agency, a non-profit organization, or a joint venture of local public agencies, non-profit organizations, or both proposes the project *[Water Code Section 79037(a)]*.

The Nature Conservancy, a 501(c)3 non-profit corporation, working with local, federal and state public agencies and conservation partners, has proposed this project.

C. The project will use the California Conservation Corps or a community conservation corps whenever feasible *[Water Code Section 79038(b)]*.

The project will use professional staff for the acquisition of real property. However, complementary conservation efforts, such as the restoration of the Santa Maria Creek through the Cagney Trust property and the Vorhees Lane properties, and the Oak Country Estates property (should it be acquired), will utilize volunteers whenever possible.

D. If it is proposed to acquire property in fee to protect or enhance flood protection corridors and floodplains while preserving or enhancing agricultural use, the proponent has considered and documented all practical alternatives to acquisition of fee interest *[Water Code Section 79039(a)]*.

[2] Both the 805 Property and the Hardy property are high priority acquisitions for the Wildlife Area as well (See Map 1); however, because of pending development plans, the owners have asked that they not be considered as willing sellers until their development issues are resolved. If these funds are granted, however, TNC will again approach the owners of the properties to seek their participation in the program. If they agree, TNC will seek to leverage this $2.6 million grant with other funds to purchase Hobbs, a portion of Oak Country Estates, and the floodplain of the 805 and Hardy properties.

The owners of both the Oak Country Estates property and the Hobbs property have indicated a willingness to sell in fee -- *only*. Development pressures in the Ramona community are such that their land is no longer economically viable as agricultural land and both owners have clearly indicated that if agreement cannot be reached to sell the land for conservation, they will sell it for development purposes.

E. Holders of property interests proposed to be acquired are willing to sell them *[Water Code Section 79040]*.

Willing Seller letters are attached (*Appendix VII*).

F. If it is proposed to acquire property interests, the proposal describes how a plan will be developed that evaluates and minimizes the impact on adjacent landowners prior to such acquisition and evaluates the impact on the following [*Water Code Section 79041*]:

Floodwaters including water surface elevations and flow velocities: We will conduct a detailed hydrologic and/or hydraulic study to determine if the impact of floodwaters on adjacent landowners will be altered as a result of acquisition of property for use as a flood protection corridor.

The structural integrity of affected levees: No levees are present in the SMCFPC or on adjacent properties.

Diversion facilities: No diversion facilities are present in the SMCPFC or on adjacent properties.

Customary agricultural husbandry practices: The SMCFPC will provide benefits to agriculture by enabling the development of a program to use prescribed grazing for the purpose of maintaining habitat for the Stephens' kangaroo rat, an endangered species. This program is anticipated as part of the implementation of the Ramona Grasslands Wildlife Area.

Timber extraction operations: No timber extraction operations exist within the SMCFPC or on adjacent properties.

The proposal must also describe maintenance required for a) the acquired property, b) any facilities that are to be constructed or altered.

TNC will provide in-kind support for the maintenance and management of the properties acquired under this grant. Later, TNC may transfer the properties to other agencies as part of creation, and long-term management, of the Wildlife Area. While discussions are preliminary, it is anticipated that the County of San Diego, County Parks, may become the immediate-term manager of the Wildlife Area. Complementary discussions are underway to designate the Wildlife Area as a *National Wildlife Refuge* for management at a future date by the U.S. Fish and Wildlife Service. No matter what agency becomes the long-term manager of the Wildlife Area, TNC will require that properties acquired with these grant funds be transferred with both a floodplain and conservation easement to make certain the values for which the properties were acquired would be maintained in perpetuity. The proposed budget for this grant includes a maintenance trust fund, as specified in Water Code Section 79044 (*Appendix VIII*).

G. The project site is located at least partially in one of the following:

A Federal Emergency Management Agency (FEMA) Special Flood Hazard Area (SFHA)

Approximately four miles of the project is in a FEMA Special Flood Hazard Area (*Map 1*).

IV. (340 points) Flood Protection Benefits

A. Existing and potential urban development in the floodplain (50)

1. **Describe the existing and potential urban development at the site and the nature of the flood risk.**

The primary purpose of the Santa Maria Creek Flood Protection Corridor (SMCFPC) is to provide flood protection to current and future residents of the Ramona community by preserving approximately 114 acres of the FEMA floodplain and preserving an additional 212 acres buffering the floodplain.

Existing Development/Flood Risk:
Although a number of houses occur along the perimeter of the Wildlife Area, it is largely undeveloped, except for the Ramona Airport (a fixed base operator for small planes and fire control operations) which is located in the eastern portion of the grasslands. There are a few small homes on the grasslands, including one serving as the office of the non-profit Wildlife Research Institute (*Map 1*). The current land use within the grasslands is predominantly cattle grazing. The Ramona Water District operates an effluent spray field on two properties near the center of the grasslands, supported by a subsurface pipe network and sprinkler irrigation system.

Existing development in the immediate vicinity of the Wildlife Area is predominantly rural residential and luxury country estate development. Current flood risk within the Wildlife Area is mostly to pasture areas and to Highway 67, Highland Valley Road, Rangeland Road and other access points along Highway 67. These flood risks involve inundation of roads and grazing areas; damage to road infrastructure; restricted access or no access to the airport; re-routing of traffic and restricted access or no access for the few homes that dot the grasslands.

The existing flood risk can be significant to areas in the vicinity of the Wildlife Area, as evidenced by the news stories about the 1980 flood (*Appendix IV*). It was estimated that 150-200 homes were flooded, the highest concentration of damage being along the urbanized portion of Santa Maria Creek, north of the Wildlife Area.

Potential Development/Flood Risk:
Large-scale residential subdivisions threaten the flat, highly-developable grasslands of the Wildlife Area, including buffer and linkage areas in all directions. Property owners are currently advancing development proposals that could bring as many as 500 new homes to the Wildlife Area. The flood risk, if urbanization is allowed to occur, increases dramatically. The 1980 flooding effects described above along the urbanized portion of Santa Maria Creek would likely be repeated in any newly developed areas within the Wildlife Area. Flood-water courses can be expected to change as a result of an increase in impervious surface areas and restrictions to the natural flood corridor; those, in turn, could increase flood water levels in some areas. Water velocity and total runoff would likely increase. The number of homes directly damaged by flood-waters can be expected to increase, as can the number of people affected by flooded roadways. Significant downstream increase in the volume and velocity of flood water, sediments and

pollutants reaching San Pasqual Agricultural Preserve and the Lake Hodges Drinking Water Reservoir should be expected as well.

2. **How often has flooding occurred historically?**

According to Don See, Associate Civil Engineer at the San Diego County Department of Public Works, "significant historical flooding has occurred on Santa Maria Creek in the past. The storms of February 1980 produced near 90-year runoff and resulted in major flood damage for Ramona." Residents in the area documented major flooding in 1998, an "El Niño" year (see *Appendix I and IV* for photographs and news stories of past flood events.)

According to Jeffrey Pasek, senior biologist at the Water Quality Laboratory of the City of San Diego Water Department, flow levels for the Lake Hodges Drinking Water Reservoir suggest that there have been numerous flood events in the watershed. Flood events likely occurred in the years in which spillage over the top of the Lake Hodges Dam was recorded: 1922, 1923, 1926-28, 1932, 1933, 1937-46, 1952, 1978-84, 1986 and 1993. Such flooding might be expected to become more frequent, and more severe. Global warming models now predict a dramatic increase in the frequency of El Niño conditions[3], which bring increased winter rainfalls to San Diego[4]. The El Niño conditions in1997-98, for example, brought a 200% increase in winter rainfall over the long-term average. Thus, under climate change scenarios, coastal San Diego County could experience markedly different, and increased, flooding regimes.

3. **Discuss the importance of improving the flood protection at this location. Include the number of people and structures that are affected by the flood hazard, and the flood impacts to highways and roads, railroads, airports and other infrastructure, and agriculture.**

Preservation of the Santa Maria Creek as proposed by the SMCFPC represents an opportunity to invest tax dollars for cost-effective flood prevention. Significant historical information indicates that the Santa Maria Creek has repeatedly flooded; over 200 homes were affected in just one flood event. That figure does not include the hundreds of families that were inconvenienced due to flooded roadways and limited access. Should the pending development proposals in the Wildlife Area advance without preservation of the floodplain, new significant impacts would likely occur to future residents.

The San Diego County Department of Public Works acknowledges that while flood levels can be high in the Wildlife Area, because the extent of existing development is minimal the potential damage is also currently minimal. Increased development in the Wildlife Area, however, will only increase the potential for flooding and flood-related costs in the Wildlife Area and downstream, where flood-related impacts to the San Pasqual Agricultural Preserve may also result in crop and soil losses.

Impacts to Lake Hodges, in the form of increased non-point source pollutants, would pose a water quality problem for the City of San Diego. The reservoir is on the Clean Water Act Section 303(d) list of impaired water bodies. It is for this reason that the City of San Diego joined TNC and the County in developing the Proposition 13 Non-Point Source application that was subsequently funded. The City of San Diego supports efforts to better manage development in

[3] Timmermann A., Oberhuber J., Bacher A., Esch M., Latif M., Roeckner E. 1999. Increased El Niño frequency in a climate model forced by future greenhouse warming. Nature 398: 694-697

[4] Pavía E.G., Badan A. 1998. ENSO modulates rainfall in the Mediterranean Californias. Geophys Res Letters 25: 3855-3858

the Santa Maria Creek corridor as development activities affect the water quality downstream in Lake Hodges.

B. Flood damage reduction benefits of the project (100)

1. **Does the proposed project provide for transitory storage of floodwaters? What is the total community need for transitory storage related to this water-course and what percentage of the total need does this project satisfy? What is the volume of water and how long is it detained?**

Yes, the proposed project protects approximately 114 acres of existing transitory storage. Neither the City of San Diego nor the County of San Diego have compiled data specific to this water-course. The applicant will conduct a detailed hydrologic and/or hydraulic study with proceeds from this grant to determine transitory storage needs.

2. **Describe any structural and non-structural flood damage reduction elements of the project. (Examples of structural elements are levees, weirs, detention/retention basins, rock slope-protection, etc. Examples of non-structural elements are acquisition of property for open space, acquisition of land for flood flow easements, transitory storage, relocation of structures and other flood prone development, elevating flood prone structures, flood proofing structures, etc.)**

No structural flood damage reduction elements are proposed. Non-structural elements include acquisition of floodplain property for flood protection. Flood easements and conservation easements would be attached to the properties when they are subsequently transferred to other agencies by TNC as part of the creation of the Wildlife Area (*See discussion in Section III.F*).

3. **By what methods and by how much dollar value will the project decrease expected average annual flood damages?**

Methods: The SMCFPC represents a natural flood protection corridor. By allowing the Santa Maria Creek and its tributaries to follow their historic course through the Ramona Grasslands Wildlife Area, and preventing any further development within the floodplain, future flood damage abatement to homes, roads and related infrastructure will be avoided. Downstream, costs associated with crop damage in the San Pasqual Agricultural Preserve and water quality issues at Lake Hodges reservoir would also be avoided.

Decrease in Costs: While San Diego County could not provide specific average annual flood costs for the area, it follows that flood damage values would increase dramatically if the proposed build-out scenario is realized. Projected value of the homes proposed within the Wildlife Area is over $200,000,000.

4. **How does the project affect the hydrologic and hydraulic conditions at the project site and adjacent properties?**

The project will complement a water quality improvement project on the adjacent Cagney Trust and Vorhees Lane properties. Under the Proposition 13 Non-Point Source program, the County of San Diego, County Parks, will be granted $1.5 million in July 2003 to be used to protect and restore habitat along the Santa Maria Creek in order to decrease transport of water-borne pollutants. The County will first use the funds to restore the Cagney Trust and Vorhees Lane

properties; however, the grant allows the County to restore additional properties on the Santa Maria Creek should the land become available for that purpose. Should the SMCFCP be funded, the target properties could also be restored, additionally limiting both the transport of pollutants and flood water down the creek.

a) **Will the project reduce the magnitude of a flood flow, which could cause property damage and/or loss of life?**

Yes. We believe once the properties along the Santa Maria Creek are restored, that flows will decrease as flood waters are slowed and allowed to recharge into the groundwater table. Studies to be funded with this grant will address this question.

b) **What are the effects of the project on water surface elevations during a flood event which could cause property damage and/or loss of life?**

Once the properties along the Santa Maria Creek are restored, water surface elevations during a flood event may be reduced as flood waters are slowed by vegetation. Studies to be funded with this grant will address this question.

c) How are flow velocities impacted by the project during a flood flow which could cause property damage and/or loss of life?

Once the properties along the Santa Maria Creek are restored, water velocity during a flood event may be reduced. Studies to be funded with this grant will address this question.

C. Restoration of natural processes (60)

1. Describe how any natural channel processes will be restored (for example: for channel meander, sediment transport, inundation of historic floodplain, etc.) and describe how these natural processes will affect flood management and adjacent properties.

The SMCFPC proposes that inundation of an historic floodplain be continued as a flood management tool within the Wildlife Area. However, the complementary project described above in Section IV.B.4 could result in the restoration of natural ecological processes on property acquired with these Flood Control funds. Adjacent properties will be positively affected as floodwaters are maintained within their historic course (and not diverted as a result of new development)

2. Describe any upstream or downstream hydraulic or other effects (such as bank erosion or scour, sediment transport, growth inducement, etc.).

There are numerous benefits to the SMCFPC, including:

Groundwater recharge: Protecting the creek, seasonal drainages, vernal pools and grasslands provide natural groundwater recharge.

Freshwater replenishment: Santa Maria Creek provides surface water replenishment for Lake Hodges.

Passive pollution control/filtration: Protecting the aquatic and grasslands system will enhance the passive pollution control/filtration capacity of the Santa Maria Creek drainage.

Mitigation of urban runoff and land conversion: Approximately two miles upstream of the Project is the urban interface. Also, immediately north of the Project is an effluent spray field operated by the Ramona Water District. Protection of the Wildlife Area will ensure that the flood channel and adjacent natural system continues to provide a pollution filtration function in the region. The urban interface brings with it a myriad of threats to the watershed function: increased nutrient and bacterial loading, sediment transport, pesticide and petrochemical contamination, groundwater pumping and disrupted water flow and runoff regimes. Preventing the conversion of the Ramona Grasslands to residential development will prevent further impacts to this watershed function.

3. If the project includes channel modification or bank protection work, will riprap or dredging be part of the design? If so, provide an analysis of potential benefits and impacts.

The project does not include channel modification. Pending funding, however, we will expand planned restoration activities on the properties to include, as necessary, revegetation with riparian and freshwater marsh species. Dredging and the use of riprap are not part of the design.

D. Project effects on the local community (60)

1. How will the project impact future flooding on and off this site?

Should the area be developed with housing or other urban uses, the likelihood of flooding will increase. This project will reduce future flooding by allowing the continuation of all the current benefits of flood protection, groundwater recharge, freshwater replenishment, pollution filtration and reduction of urban runoff transport. Additional positive impacts will result when the project area is restored with natural vegetation that will slow the transport of flood waters and enhance groundwater recharge.

2. How will the project affect emergency evacuation routes or emergency services and demands for emergency services?

The SMCFPC will have a positive affect on these routes and services as it will keep these heavily flood-prone areas from being developed and thus negate the requirement to provide emergency services to future residents of the floodplain. Flood events in the past have closed roads and increased demands for emergency services. The County of San Diego Public Works Department confirms that public access to the Ramona Airport has been cut off during flood events as a result of high water at Rangeland Road and Highland Valley Road. Current residents report access issues associated with Highway 67 where Etcheverry Creek (a tributary of the Santa Maria) crosses this 2-lane highway.

3. Explain how the project will comply with the local community floodplain management ordinance and the floodplain management criteria specified in the Federal Emergency Management Agency's National Flood Insurance Program (FEMA's NFIP).

Don See, Associate Civil Engineer of the San Diego County Public Works Department confirms that the SMCFPC will be in compliance with the Flood Damage Prevention Ordinance, Watercourse Ordinance and Resource Protection Ordinance because it is limited to acquisition

of interests in real property. The same is true with regard to compliance with floodplain management criteria specified in FEMA's National Flood Insurance Program.

E. Value of improvements protected (70)

1. What is the assessed value of structural improvements that will be protected by the project?

The SMCFPC primarily offers protection from future flood damage costs by limiting development in a natural flood protection corridor. A rough estimate of future values of the homes currently proposed in the Wildlife Area, based on current values, is $ 200,000,000**.**

2. What is the estimated replacement value of any flood control facilities or structures protected by the project?

There are currently no flood control facilities or structures that are directly protected by the SMCFPC. However, construction of new homes in the Wildlife Area can be expected to result in increased imperviousness. Increased imperviousness will lead to greater peak runoff and greater peak flows in the Santa Maria Creek. As Santa Maria Creek is a tributary to the San Dieguito Creek in the San Pasqual Valley, there is concern about increased flooding of San Diego's San Pasqual Agricultural Preserve. Thus, the SMCFPC will provide protection to the structures in the San Pasqual Agricultural Preserve.

V. (340 points) Wildlife and Agricultural Land Conservation Benefits

Proponent should provide a statement of the relative importance of the project's wildlife and agricultural land conservation benefits. DWR will use the statement and all other project materials to assign a fraction of the total benefits to each type (wildlife (F_w) or agricultural land conservation (F_a)) so that the fractions total unity. Actual points scored for each type of resource will be multiplied by the respective fraction for each resource, and the wildlife and agricultural scores resulting for each type of resource will be added together.

Wildlife Benefits: The principal secondary benefits of this flood protection project derive from the exceedingly high habitat values it secures. San Diego County is the most biologically diverse county in the continental United States. Historically, coastal San Diego was a dynamic mosaic of grasslands, coastal sage scrub, chaparral, and oak and riparian woodland habitats. Today much of that vast mosaic of habitats has been destroyed, fragmented or degraded due to urban development. As a result, San Diego County now contains more species that are threatened, endangered or of special conservation concern than any other county in the continental United States[5]. The Santa Maria Creek Flood Protection Corridor represents the ecological core of one of the last remnants of extensive, undeveloped grassland habitat in Southern California. The Ramona Grasslands Wildlife Area (as defined in a *California Fish and Game Conceptual Area Protection Plan, or CAPP*) contains the full complement of habitat types native to this region: grassland, coastal sage scrub, chaparral, riparian forest, oak woodland, and vernal pools. In addition to augmenting protection of biological (and cultural) resources of the Wildlife Area itself, this project will be instrumental to the long-term viability of regional conservation reserve planning efforts, such as the Natural Community Conservation Plan (NCCP) subarea plans,

[5] Dobson, A. P., J. P. Rodriguez, W. M. Roberts, and D. S. Wilcove. 1997. Geographic distribution of endangered species in the United States. Science 275:550-555.

which are aimed at preserving in perpetuity the full suite of species native to this biodiversity hotspot.

Agricultural Land Conservation Benefits: Although the agricultural land conservation benefits are not the primary focus of this project (there are basically no economically viable *agricultural* land use alternatives for the planning area), the project will enable significant research to advance agricultural land best management practices. Current agricultural use within the Ramona Grasslands is pasture cattle grazing. A key component of overall conservation planning for the Wildlife Area is to create a model for rangeland management for conservation purposes. Prescribed grazing can be an effective management tool for grasslands, to enhance native species diversity by reducing the competitive dominance of exotic grass species. Grazing can also be a cost-effective means to control invasive pest plant species, and manage fire risk through fuel load reduction. Interestingly, grazing prescriptions *must* be developed for the Wildlife Area, because it is habitat for the federally endangered Stephens' kangaroo rat. Grazing is required to maintain quality, open grassland habitat for this species; without grazing, exotic grasses and forbs rapidly become too dense for this species to persist. In this region, little research has been performed to elucidate range management practices that are ecologically as well as economically sustainable. The Wildlife Area is an ideal location to create a model for rangeland best management practices. Thus, even though the area does not contribute significantly to total beef production in the County, the project could nevertheless have substantial industry-wide regional impacts. That impacts will be complemented by the development of a model for "smart growth" land use planning in the Wildlife Area, that could be replicated elsewhere in the county to foster growth patterns that are ecologically and hydrologically sustainable, and compatible with and supportive of agricultural land uses.

A. (340xF_w points) Wildlife Benefits

Habitat values refer to the ecological value and significance of the habitat features at this location that presently occur, have occurred historically, or will occur after restoration.
Viability refers to the site's ability, after restoration if necessary, to remain ecologically viable with minimal on-site management over the long-term, and to be able to recover from any natural catastrophic disturbances (fire, floods, etc.).

A1. Importance of the site to regional ecology (70)

1. **Describe any habitat linkages, ecotones, corridors, or other buffer zones within or adjacent to the site. How are these affected by the project?**

Habitat Core Areas: The SMCFPC represents the critical riparian corridor through a proposed grassland and vernal pool core reserve complex, the Ramona Grasslands Wildlife Area. Continued natural functioning of this aquatic corridor, including its episodic flooding regime, is vital to the integrity of the overall Wildlife Area.

Habitat Linkages: Protection of the SMCFPC and Wildlife Area would complete a regional network of habitat linkages and corridors already established or anticipated in the region (e.g., NCCP-subarea plans). The Wildlife Area functions as a landscape-scale linkage, facilitating wildlife movement from the eastern San Diego mountains to the more coastal habitat preserves of the west.

Ecotones: The Wildlife Area is located at an elevational transition zone between the coast and mountains of San Diego County. Thus, the SMCFPC traverses wide ecological and land use

gradients. The Santa Maria Creek flows from the increasingly urban community of Ramona into an extensive grassland valley. The intermittent stream continues below a considerable riparian canopy, before emptying into a grassland/oak savanna. Soon thereafter, the terrain steepens, and the creek crosses scrub and chaparral ecotones en route to the San Dieguito River, where the surrounding land use is the predominantly intensive agriculture of the San Pasqual Agricultural Preserve.

Buffer Zones: Currently, the SMCFPC is partially buffered by riparian forest, and by extensive native and annual grassland. The grasslands themselves are located within a large undeveloped valley, buffered by scrub and chaparral covered slopes. These natural habitat buffer regions are critical to the long-term ecological viability of the natural communities of the Wildlife Area.

2. Is the site adjacent to any existing conservation areas?

The SMCFPC traverses the proposed 8000-acre Ramona Grasslands Wildlife Area. The entire Wildlife Area has been identified by an independent scientific advisory panel as an area of high biological importance in the proposed North San Diego County Multiple Species Conservation Plan (an NCCP-subarea plan). The Wildlife Area also helps connect pre-approved mitigation areas within the existing MSCP reserve plan. The Wildlife Area is a half-mile northeast of Mount Woodson (which is partially protected) and is nearly contiguous with BLM lands to the north. Santa Maria Creek joins the San Dieguito River at the San Pasqual Agricultural Preserve. Discussions are underway to expand the boundary of the San Dieguito River JPA and River Park (spanning 55 miles from Volcan Mountain to the Pacific Ocean) to include the Santa Maria Valley, and therefore the SMCFPC.

3. Describe any plans for aquatic restoration resulting in in-stream benefits.

Extensive planning is underway for protection, restoration, and enhancement of the aquatic resources (for both water quality and habitat values) of the Santa Maria Creek. In July 2003 San Diego County will be awarded $1.5 million in Proposition 13 funds to help purchase and restore a key reach of the SMCFPC. The County Department of Public Works is acquiring and restoring another section of the SMCFPC, for offsite mitigation of impacts to wetland habitat due to expansion of a regional airport runway. Restoration will include revegetation of overgrazed areas, recontouring of denuded stream sides, as well as the eradication of invasive exotic riparian plants and exotic animals that jeopardize populations of rare native fauna. Endangered species and invasive species management prescriptions will likely call for continued grazing within the grassland areas; if so, riparian fencing and alternative cattle watering facilities will be established. If funding permits, we will strive to incorporate any additional properties that may be protected (e.g., through this proposal) into this restoration program.

4. Discuss any natural landscapes within the site that support representative examples of important, landscape-scale ecological functions (flooding, fire, sand transport, sediment trapping, etc.)?

Episodic flooding is a critical ecological process that governs the ecology of this intermittent stream corridor (e.g., riparian forest succession, recruitment). The project also provides invaluable ecosystem services that naturally treat non-point source pollutants in the watershed. Santa Maria creek flows from the increasingly urbanized community of Ramona, through the Ramona Grasslands, to the San Dieguito River which empties into the Lake Hodges Drinking

Water Reservoir, a proposed impaired water body under Clean Water Act Section 303(d). The gentle topography of the grasslands performs filtering services, capturing pollutants, sediments, and nutrients from the built environment, preventing its passage to the reservoir. The topography also slows water velocity and facilitates groundwater recharge. Moreover, the undeveloped grasslands serve to buffer downstream infrastructure (e.g, the Agricultural Preserve) from flooding resulting from increased impervious surface development in Ramona.

A2. Diversity of species and habitat types (70)

1. Does the site possess any:

i. areas of unique ecological and/or biological diversity?

ii. vegetative complexity either horizontally or vertically?

Because of the high vertical and horizontal vegetative complexity of the Wildlife Area, the site possesses exceptionally high biological diversity. Surrounding and embedded within the grasslands core reserve is a diverse array of rare habitat types, including vernal pools, coastal sage scrub, oak woodland, and riparian forests. This mosaic of habitats within the Wildlife Area supports numerous species of conservation concern, including the endangered Stephens' kangaroo rat, endangered San Diego fairy shrimp, the endangered arroyo southwestern toad, numerous rare plants, neotropical migrant songbirds, and raptors.

2. Describe habitat components including year-round availability of water, adequate nesting/denning areas, food sources, etc.

The Wildlife Area is important for habitat generalist and specialist species alike. The riparian corridor is home to the endangered arroyo southwestern toad, which is dependent upon intermittent rather than perennial streams. The riparian forest of sycamore, cottonwood, willow and mulefat provides nesting habitat for neotropical migrant songbirds, likely including the endangered least Bell's vireo. The riparian areas also provide important perching and nesting sites for raptors, including golden eagle; the grasslands provide critical foraging grounds for breeding as well as overwintering raptors. The grasslands provide breeding habitat for western meadowlarks, savanna sparrows, and horned larks. Outcroppings of boulders in the grassland support western fence lizards, granite spiny lizards, long-tailed weasel, and burrowing owls. Vernal pools provide critical habitat for numerous rare plants, as well as important resting and feeding habitat for migrating water birds.

3. Describe any superior representative examples of specific species or habitats.

In addition to being home to numerous state and federally threatened and endangered species (described throughout this section), the Wildlife Area is internationally renowned as a prime raptor viewing area, due to the high abundance and diversity of raptors that breed, overwinter, or otherwise reside in the Santa Maria Valley.

The Wildlife Area also abounds with evidence of its importance as prehistoric *human* habitat. Seamlessly integrated into the habitat and topographic features of the area is a remarkably intact Kumeyaay Indian civilization site. Archeologists who have surveyed the area claim that the site ranks in the Top 10 most significant, unprotected cultural resource sites in the State. While opportunities to protect complete village site complexes are rare, opportunities to do so within an intact landscape of high biological importance are exceedingly rarer. Some of the most culturally resource rich areas are located on the Oak County Estates property (proposed for partial acquisition in this grant).

4. **Does the site contain a high number of species and habitat types? List and describe.**

The Wildlife Area contains the full complement of habitat community types that are native to this biodiverse region. The protection and enhancement of this natural mosaic will benefit numerous species of conservation concern. State and /or federal listed species include Stephens' kangaroo rat, arroyo southwestern toad, and the San Diego fairy shrimp; sensitive plant species include southern tarplant, spreading navarretia, and little mousetail. Other notable wildlife species represented in Wildlife Area include badger, mountain lion, bobcat, gray fox, coyote, San Diego horned lizard, granite spiny lizard and several species of raptors, including golden eagle, merlin, prairie falcon, ferruginous hawk, red-tailed hawk, and burrowing owls. NCCP sub-area planning has identified the Wildlife Area as one of the most important potential core reserve areas in northwestern San Diego County. The species and habitats that will benefit from the protection of the SMCWPC and the Wildlife Area are highlighted in the CDFG CAPP for the Wildlife Area (*Appendix V*).

5. **Does the site contain populations of native species that exhibit important subspecies or genetic varieties historically present prior to European immigration?**

The Wildlife Area provides exceptional habitat for the federally endangered Stephens' kangaroo rat. This species requires very specific habitat attributes, which are distributed very sparsely throughout the County. The Ramona subpopulation appears to be the southwesternmost subpopulation within a broader "metapopulation", distributed over relatively small portions of San Diego and Riverside counties. The Ramona subpopulation is one of only three known or suspected subpopulations in San Diego County, and so is thought to be essential for long-term regional viability of this species.

Engelmann oak trees also occur within the Wildlife Area. This species once ranged from Oregon to Baja California, but today their range is limited to essentially two populations (in San Diego and Riverside counties). As is true with many rare oak species, there is widespread concern about an apparent lack of recruitment in the species.

In 2001, surveys of the vernal pools on the Cagney Trust property revealed a population of the rare Parish's brittlescale, which was thought to be extinct until the 1990's; the only other known extant population occurs near Hemet, CA. Dwarf pepper-grass was also located – a plant that has been nearly extirpated in San Diego County.

A3. Ecological importance of species and habitat types (100)

1. **Discuss the significance of habitat types at this location and include any local, regional, or statewide benefits received by preserving or improving the area.**

Even within a *global* perspective, San Diego County is renowned for its biodiversity. It is recognized as the core area of one of *Conservation International*'s 25 Global Biodiversity Hotspots. The mediterranean climate vegetation types it contains occur in only five small regions of the planet; collectively these areas contain over 20% of the earth's plant species. San Diego County contains more species – and more imperiled species – than any other county in the continental United States. Ensuring the viability of this biodiversity poses a formidable challenge for conservation planners, especially as urban development pressures intensify. An

ambitious and innovative regional conservation planning effort is in process. The North County Multiple Species Conservation Plan subarea plan has identified the Ramona Grasslands not only as an area of exceptionally high biological importance, but also as one of the few large-scale expanses of natural habitat remaining in the subarea. Thus, this project is integral to the long-term viability of this reserve network, and protection of the biodiversity within the hotspot.

2. Does the site contain any significant wintering, breeding, or nesting areas? Does it fall within any established migratory corridors? What is the level of significance? How are these affected by the project?

This project will have positive effects and no foreseeable adverse effects on species native to the area. The riparian corridor of the SMCFPC provides critical breeding habitat for rare native amphibians and neotropical migrant songbirds. The grasslands provide critical winter foraging habitat for numerous raptor species, including ferruginous hawks, Cooper's hawks, sharp-shinned hawks, merlins, prairie falcons, northern harriers, and golden eagles. The creek drainage, including its riparian habitat, vernal swales, and vernal pool assemblage, also provides an important stopover habitat for migratory waterfowl and wading birds along the Pacific Flyway.

3. Describe any existing habitats that support any sensitive, rare, "keystone" or declining species with known highly restricted distributions in the region or state. Does the site contain any designated critical habitat? How are these affected by the project?

The Wildlife Area contains a high concentration of rare habitats and even rarer species, many of which are federally threatened/endangered species.

Native grasslands are exceedingly rare in San Diego County; perhaps 6% of their historic coverage remains. Most grasslands have been lost to agricultural and urban development, or displaced by exotic, annual grasses. This community type is considered sensitive by CDFG and the County of San Diego.

Coastal sage scrub has been reduced to less than 10% of its historic coverage in Southern California; nearly 100 species that reside in coastal sage scrub are listed as threatened, endangered, or species of special concern by state and/or federal agencies.

Vernal pools are ephemeral wetlands that occur in subtle depressions throughout the Wildlife Area. Vernal pools did not historically cover much of San Diego County; today, as little as 2% of that limited historic distribution remains. Vernal pools are considered sensitive by CDFG and the County of San Diego.

4. What is the amount of shaded riverine aquatic (SRA) and riparian habitat to be developed, restored, or preserved?

The SMCFPC will protect 114 acres of habitat within the FEMA floodplain; when added to areas soon to be under permanent conservation protection, the combined total of protected floodplain will be 256 acres. Under the management scenarios outlined in the CAPP and the Proposition 13 proposal, cattle would be excluded from the riparian channel, and we would expect the floodplain to be either passively or actively restored to a riparian forest corridor of approximately the same extent as the floodplain. All told, the SMCFPC will protect and enhance the health of approximately four miles of Santa Maria Creek.

A4. Public benefits accrued from expected habitat improvements (60)

1. **Describe present public use/access, if any. For instance, does or will the public have access for the purpose of wildlife viewing, hunting, fishing, photography, picnics, etc.**

Once protected, the site offers exceptional, lasting opportunities for public recreation, such as hiking, picnics, horseback riding, bird watching, interpretive programs (e.g., for the Native American archeological sites), and other outdoor activities. Public use guidelines, consistent with the protection of sensitive biological and cultural resources, will be developed by The Nature Conservancy, with partners. The Proposition 13 award will likely fund some of the restoration, monitoring, and management planning. Because of the Wildlife Area's proximity to existing and future urban areas, no hunting is anticipated.

2. **Discuss areas on the site that are critical for successfully implementing landscape or regional conservation plans. How will the project help to successfully implement the plans?**

The Santa Maria Creek Flood Protection Corridor is arguably the most biologically resource rich element of the Ramona Grasslands Wildlife Area. Protection of that corridor will provide a critical foundation for subsequent watershed and habitat protection activities. The North County Multiple Species Conservation Plan (an NCCP subarea plan) has identified the Wildlife Area as a critical habitat core area – one of only a handful of potential core area reserves in the subarea. Due to an unusual sub-area boundary, the Wildlife Area also is also a critical landscape connection *within* an adjacent regional conservation plan, San Diego County's (southwestern) MSCP.

3. **Describe the surrounding vicinity. Include the presence or absence of large urban areas, rapidly developing areas, and adjacent disturbed areas with non-native vegetation and other anthropogenic features. Do any surrounding areas detract from habitat values on the site?**

Ramona is currently at the crest of an urbanization/development wave moving eastward across San Diego County. Urban buildout will have dramatic impact on the hydrological and ecological integrity of the Santa Maria Creek/San Dieguito River watershed. Although a number of houses already occur along the perimeter of the Wildlife Area, the area is largely unfragmented, except by paved roads and barbed wire fencing. The predominant land use within the grasslands is currently pasture cattle grazing. Grazing practices could be improved, to better prevent adverse effects of grazing on aquatic resources (e.g., compaction of soils, erosion of streamsides, etc.)

4. **Describe compatibility with adjacent land uses.**

Protection of the SMCFPC and the Wildlife Area is compatible with adjacent land uses. Strong local community support exists for maintaining a vestige of Ramona's rural, ranching past. Along the perimeter of the Wildlife Area is low density housing, which segues to natural landscape. The open space, view shed, and recreation benefits of a neighboring reserve system augment values of adjacent properties. A regional airport also exists within the grasslands; protection of the properties within the flight path provides greater clearance and buffering to the airport.

A5. Viability/sustainability of habitat improvements (40)

1. **Describe any future operation, maintenance and monitoring activities planned for the site. How would these activities affect habitat values?**

There exists strong agency and NGO support for protection of the Wildlife Area. Its protected areas will eventually be incorporated into the future NCCP reserve network, which stipulates management and monitoring requirements. While TNC will manage properties purchased with these funds in the immediate term, in the CAPP, the County of San Diego has offered to assume monitoring and management responsibilities of public properties protected within the Wildlife Area, which will ensure ongoing protection of the biological resource values.

2. **Does the site contain large areas of native vegetation or is it adjacent to large protected natural areas or other natural landscapes (for example, a large stand of blue-oak woodland adjacent to public land)?**

The proposed Wildlife Area is a landscape-scale core reserve with buffer areas and linkages to a regional network of natural protected areas.

3. **Is the watershed upstream of the site relatively undisturbed or undeveloped and likely to remain so into the foreseeable future? Describe its condition.**

The watershed upstream of the SMCFPC has already been impacted by rural and urban development in Ramona. And, it is likely that those developed areas will become more densely developed. The value of the SMCFPC, however, is that it will effectively prevent incompatible development within a large area within the watershed, with considerable water quality, flood prevention, and wildlife values.

4. **Describe any populations of native species or stands of native habitats that show representative environmental settings, such as soil, elevations, geographic extremes, or climatic conditions (for example, the wettest or most northerly location of a species within the state.)**

Many species that are rare in San Diego County are highly endemic and occur in highly localized distributions. There are a number of rare plants that occur in the area that are known to only occur in a few locations (e.g., Parish's brittlescale, Dwarf pepper-grass). The Wildlife Area contains the southwesternmost subpopulation of Stephens' kangaroo rat.

B. (340xF_a points) Agricultural Land Conservation Benefits

B1. Potential productivity of the site as farmland (120)

1. **Describe the quality of the agricultural land based on land capability, farmland mapping and monitoring program definitions, productivity indices, and other soil, climate and vegetative factors.**

High housing demand in San Diego County, in concert with the highly developable terrain of the Santa Maria Valley, renders most agriculture in the Valley not economically viable. For that reason, the agricultural benefits of this project are not a primary focus of this project. However, the project does provide a unique opportunity and motivation to explore the utility of cattle grazing as a conservation management tool. The current agricultural use in the Wildlife Area is cattle grazing. In this semi-arid region, quality of forage varies considerably within and between years. In 2002, for example, San Diego County experienced record drought, capping nearly four

years of extended drought. Seasonal or annual lack of rainfall can lead to low primary productivity, which in turn can lead to overgrazing and damage of sensitive wildlife and aquatic resources. While the grazing within the Ramona Grasslands may not contribute significantly to overall countywide beef production (Eric Larson, Executive Director of the San Diego Farm Bureau, *personal communication*), the conceptual plan for the Ramona Grasslands Wildlife Area proposes a habitat management program that will have as its centerpiece prescribed, managed grazing. Thus, one outcome of this broader conservation program will be a model for rangeland management practices that are compatible with conservation values; that will have broad application throughout the semi-arid mountains of Southern California.

2. Are projected agricultural practices compatible with water availability?

Yes. Managed grazing prescriptions will be designed so as to be compatible with available water and forage resources.

3. Does the site come with riparian, mineral, and/or development rights?

All the properties that are the subject of this grant have development rights. No specially-granted riparian or mineral rights are attached to the properties.

4. Is the site large enough to sustain future commercial agricultural production?

The site is potentially large enough to sustain commercial agricultural production; however, economics do not favor agricultural uses of the site. High housing demand renders the highest and best use of this land as residential development. This project will help prevent that outcome, and the direct and indirect adverse effects of that outcome on flooding regime.

5. Does the site contain any adverse or beneficial deed restrictions affecting agricultural land conservation?

No deed restrictions affecting agricultural land or conservation are recorded on the properties.

6. Describe the present type of agricultural use including the level of production in relation to the site's productivity potential. What is the condition of the existing infrastructure that supports agriculture uses?

San Diego County ranks tenth among California counties in agricultural production, according to the Department of Conservation's Farmland Conservancy Program. The principal agricultural use in the Santa Maria Valley is cattle grazing. Current cattle grazing levels, however, are generally higher than the Wildlife Area can support, often resulting in overgrazing; this is of particular concern during episodes of extended drought, like San Diego has experienced over the past four years.

B2. Farming practices and commercial viability (40)

1. Does the area possess necessary market infrastructure and agricultural support services?

Yes. Ramona, like other communities in the vicinity and in the San Diego backcountry, has a long tradition of ranching, and much of the market infrastructure it requires is still in place,

despite rapid urbanization of the region. However, San Diego County no longer supports sites for large-scale livestock auctions; the nearest facilities are in neighboring Riverside County.

2. Are surrounding parcels compatible with commercial agricultural production?

Yes. There are still large areas in agricultural production (e.g., cattle, avocado, ornamental nurseries) in the vicinity of the SMCFPC and in the Wildlife Area. Increasingly, however, agricultural lands are being converted to semi-rural and suburban housing. Indeed, in many areas of the County – like Ramona -- "agriculture" land uses are often a transitional land use prior to conversion to housing.

3. Is there local government economic support in place for agricultural enterprises including water policies, public education, marketing support, and consumer and recreational incentives?

Local municipalities recognize the value of agriculture and provide economic as well as policy supports. As an example of such policies, if some landowners in San Diego County proceed with developments on grazing land, they must mitigate loss of rangeland acreage. The County's Multiple Species Conservation Program supports the use of agricultural easements to ensure the continued stability of the agricultural economy. Downstream of the SMCFPC, the City of San Diego created the San Pasqual Agricultural Preserve to support agriculture within the city and educate the public about agricultural practices. Flooding in the Santa Maria Creek can affect downstream agricultural production in the Preserve.

4. Describe any present or planned future environmentally friendly farm practices (no till, erosion control, wetlands avoidance, eco-friendly chemicals, recycling wastes, water conservation, biological pest control).

A key component of the Wildlife Area will be aimed at developing rangeland management practices that are both economically and ecologically viable. The focus of the prescriptions will be the control of non-native rangeland pest species (exotic grass and forb species), the enhancement of viability and diversity of native species, fuel load reduction for fire risk management, and enhancement of water quality and flood management capabilities in the watershed.

B3. Need and urgency for farmland preservation measures (70)

1. Is the project site under a Williamson Act contract?

There are currently no properties under the Williamson Act within the SMCFPC.

2. Describe the surrounding vicinity. Include the presence or absence of large urban areas, rapidly developing areas, low density ranchette communities, and adjacent disturbed areas with non-native vegetation and other human-induced features. Do any surrounding areas detract from agricultural values on the site?

The Wildlife Area is on the outskirts of the rapidly "urbanizing" semi-rural community of Ramona, approximately 35 miles from downtown San Diego. Land use immediately upstream of the

SMCFPC is urban, suburban and ex-urban development. Land use in the immediate vicinity of the Wildlife Area is predominantly rural residential, ranchette, and luxury country estate development. Immediately north of the SMCFPC is an effluent spray field, operated by the Ramona Water District and a small regional airport. The agricultural values of the site are most threatened and compromised by encroachment of residential development.

3. What types of conversion or development are likely on neighboring parcels? What are the land uses of nearby parcels? Describe the effects, if any, of this project to neighboring farming operations or other neighboring land uses.

With the implementation of the MSCP and the creation of the proposed Wildlife Area, TNC and its partners hope to encourage "smart," more compact growth, sensitive to wildlife concerns, throughout San Diego County. One of the first "smart" projects in the Wildlife Area has been proposed on Oak Country Estates. The property owner had originally proposed two projects, both utilizing all 700 acres of his property; both were turned down by the local planning group. His first proposal was for a golf course; the second, a rural ranchette sprawl project. Both projects would have essentially destroyed the habitat values and agricultural use of the property.

Working with the wildlife regulatory agencies, TNC, the county and the community, the owner prepared a third plan that better balanced the needs of preservation with the owner's desire for economic development. His new plan reduced the number of lots, concentrated the development into the least sensitive acres and left a large area of open space for on-site mitigation. In addition, his new plan retained 300 of the most environmentally sensitive acres (along the Santa Maria Creek) for conservation and conservation-friendly agriculture (or other use if a conservation sale could not be consummated.) In contrast to his first two approaches, his new plan has received wide support.

Accomplishing this type of conservation-friendly development in the Wildlife Area is one of TNC's goals for the site. While the Wildlife Area merits 100 percent protection, sufficient funding doesn't exist to preserve 100 percent of all of the properties.

TNC's goal for the Wildlife Area is to combine a strong conservation component, buying 100 percent of some properties (like the Cagney Trust and the Hobbs property) and buying portions of other properties (such as Oak Country Estates) where a complementary smart growth component can be achieved. In the case of Oak Country Estates, there is no legal relationship between the two aspects of the property; the development is not dependant on the conservation sale or *vice versa*. However, by working in partnership with the property owner, we believe we can achieve a much better conservation outcome for both parts of the property.

The alternative to this approach in many rural and semi-rural communities in the county is to continue the current land use pattern of importing suburban subdivisions. That approach eliminates any chance that agriculture will survive for any duration. By supporting this proposed SMCFPC grant, the Department of Water Resources will be helping support a much larger effort to change the way in which rural communities "develop" in the future.

4. Describe the relationship between the project site and any applicable sphere of influence.

The aforementioned “smart growth” plan (*Section B.3.3*) being developed and implemented in the Wildlife Area will provide a model for development throughout the San Diego backcountry. As these principles are reinforced through land use planning policy (e.g., NCCP plan, General Plans) and replicated elsewhere, we might expect less spawling development in the open space that currently remains. Significant benefits include: preservation of “working” (i.e., agricultural) landscapes, preservation of open space, reduced buildout of impervious surfaces (therefore enhanced downstream water quality, watershed integrity, and groundwater recharge), and so on. Thus, the sphere of influence of successful implementation of the Wildlife Area vision will be considerable.

5. Is the agricultural land use on the project site consistent with the local General Plan? Does the General Plan demonstrate commitment to long-term agricultural conservation?

Yes. The County of San Diego is completing a major overhaul of its General Plan. The proposed plan update complements the recently released working draft of the North County MSCP sub-area plan, emphasizes conservation of the agricultural lands throughout the county, including some of the lands within the Wildlife Area.

B4. Compatibility of project with local government planning (50)

1. Is the agricultural land use on the project site consistent with the local General Plan? Does the General Plan demonstrate commitment to long-term agricultural conservation?

Yes. The County of San Diego is completing a major overhaul of its General Plan. The proposed plan update complements the recently released working draft of the North County MSCP sub-area plan, emphasizes conservation of the agricultural lands throughout the county, including some of the lands within the Wildlife Area.

2. What is the present zoning and is the parcel developable?

Present zoning for Oak Country Estates is S-88, Specific Planning Area. The land is developable and a development plan for approximately 60 homes on 400 of the 700 acres is being advanced. On the 300 remaining acres, the owner has created two separate parcels that he is willing to sell to TNC. Should TNC not be able to secure funds for this acquisition, the owner has indicated he will sell to another buyer. One home and agricultural operation (e.g., hobby vineyards) would be allowed under current zoning on each of these two parcels.

3. Is there an effective right to farm ordinance in place?

San Diego County Code Section 63.401, Agricultural Enterprises Disclosure Act reiterates the State's Right to Farm Act in California Civil Code Section 3482.5.

4. Is the project description consistent with the policies of the Local Agency Formation Commission?

Yes.

5. Will the project as proposed impact the present tax base?

The SMCFPC could remove assessed lands from the tax base, depending upon the tax status of the agency or organization that ultimately assumes long-term management of the property in the Wildlife Area.

B5. Quality of agricultural conservation measures in the project (50)

1. **For agriculture lands proposed for conservation, describe any additional site features to be conserved that meet multiple natural resource conservation objectives, including wetland protection, wildlife habitat conservation, and scenic open space preservation where the conservation of each additional site feature does not restrict potential farming activities on the agriculture portions of the site.**

In addition to providing a natural flood plain corridor, the site will conserve prime wildlife habitat for a variety of endangered and threatened species, as described in detail in *Section V.A.* Viewshed and recreational opportunities will also be advanced by the preservation of the SMCFPC and the Wildlife Area. These features of the SMCFPC are complementary to the prescribed grazing proposed for the Wildlife Area.

2. **What are the present biological/ecological values to wildlife? How are these values affected by the proposed project?**

These values are described in *Section V*.

3. **Is the project proponent working with any local agricultural conservancies or trusts?**

TNC is working in partnership with the County of San Diego, the San Diego Farm Bureau, and the regional office of the Natural Resource Conservation Service in developing best management practices for prescribed grazing. According to the local Natural Resource Conservation Service office, there are no other agricultural conservancies or trusts in San Diego County.

4. **Does conservation of this site support long-term private stewardship of agricultural land? How does this proposal demonstrate an innovative approach to agricultural land conservation?**

The grazing prescriptions proposed for the Wildlife Area would create a revolutionary new model for private stewardship and rangeland management throughout Southern California.

5. **Without conservation, is the land proposed for protection likely to be converted to non-agricultural use in the foreseeable future?**

Yes.

VI. (320 points) Miscellaneous Benefits and Quality of Proposal

A. Size of request, other contributions, number of persons benefiting, cost of grant per benefited person (40)

Estimated Total Project Cost[6] (for Wildlife Area)	$65,000,000
Amount of FPCP Grant Funds Requested	$ 2,600,000
Amount of Local Funds (to Wildlife Area, to date)	$ 639,000
Amount of In-kind Funds (to Wildlife Area, to date)	$ 250,000
Additional Funding (to Wildlife Area, to date)	$ 3,911,000
Number of persons expected to benefit	78,000
Flood Protection Corridor Funds per person benefited.*	$ 33

(Count as beneficiaries those receiving flood benefits, recreational users of habitat areas protected by the Project, and consumers of food products from agricultural areas conserved by the Project.)*

B. Quality of effects on water supply or water quality (90)

1. Will water stored by the project provide for any conjunctive use, groundwater recharge, or water supply benefit?

As discussed in detail in *Section IV.C.2*, the Santa Maria Creek, seasonal drainages, vernal pools and grasslands provide natural groundwater recharge. The Creek provides surface water replenishment for Lake Hodges drinking water reservoir, five mile downstream of the Wildlife Area.

2. Does the project fence cattle out?

Partially. As part of the broader conservation program, we will develop (using other funding sources) a biological resource management plan for the Wildlife Area, aimed at enhancing and protecting the native diversity of the region. It will include development of best rangeland management practices and managed grazing prescriptions for the grassland valley. We anticipate, however, that excluding cattle from the aquatic resources (the riparian corridor and vernal pools) will be necessary.

3. **Does the project pass water over newly developed fresh water marsh?**

No, the project passes water over and through its natural channel.

4. Does the project trap sediments?

Yes, a protected, vegetatively complex riparian corridor will provide numerous ecosystem services to enhance water quality, by filtering or otherwise minimizing transport of pollutants, nutrients, bacteria, and sediments to downstream reservoirs.

C. Quality of impact on underrepresented populations or historic or cultural resources (60)

1. Does the project benefit underrepresented populations? Explain.

Yes. A protected, open space reserve in close proximity to the community of Ramona will create outdoor recreation and education opportunities for the entire population. The project will also

[6] Assumes 100% acquisition, undeveloped land.

benefit numerous bands of Native American in San Diego County, through the protection of an invaluable cultural resource site (*see below*).

2. Are historical or cultural resources impacted by the project? Explain.

Yes, but positively. This project will contribute to the protection of a unique and significant archaeological site, an early Native American settlement known as Pamo. This site is of particular cultural significance to various bands of Kumeyaay Indians in the County. Research on the archaeology of the Santa Maria Valley has been conducted by San Diego State University and the San Diego Historical Society. Although only half of the Wildlife Area has been surveyed, over 140 sites have been recorded; a total of over 300 sites are anticipated when the survey is completed. Known elements that would be preserved in the Wildlife Area include numerous major village sites, milling areas, examples of rock art, ceremonial sites, and seasonal camps. An impressive ceremonial or perhaps astrological feature made up of parallel stone alignments and a monolithic split boulder has been discovered that likely has State or even national significance. Opportunities to preserve of village complex of this scale are rare. (*Note: no photographs are attached. To prevent looting or vandalism, research teams have expressly requested that photographs of the area not be published until the sites are protected.)*

In addition to this outstanding prehistoric resource, the Wildlife Area includes an important historic site. The area near the Ramona Airport was used during World War II as a bombing target. The Ramona Bombing Target and Emergency Landing Field covered 405 acres and were used to allow pilots to practice dive-bombing an aircraft carrier. The target consisted of a series of concentric rock rings to simulate the size of an aircraft carrier. Some debris from the target and practice “bomblets” still remain.

D. Technical and fiscal capability of the project team (60)

1. Does the project require scientific or technical expertise, and if so, is it provided for in the grant proposal?

The grant funds requested in this application will be used specifically for acquisition of one or more flood priority properties. Funds will be leveraged whenever possible. The applicant's existing project team has the technical and scientific expertise to initiate and complete the acquisitions. Services required to complete acquisitions, such as appraisals and Phase I Environmental reports, will be acquired from outside consultants. The hydrology report required by Section 497.7 CA Code of Regulations will also be acquired from an outside consultant. These costs are represented as line items in the budget (*Appendix VIII).*

2. Grant funds will be available in phases. What monitoring and reporting mechanisms are built into your administrative plan to track progress, initiation, and completion of successive phases?

The Nature Conservancy's accounting system is set up to track costs for each grant, phase and task independently, from initiation to completion of the SMCFPC.

3. Please outline your team’s management, fiscal and technical capability to effectively carry out your proposal. Mention any previous or ongoing grant management experience you have.

The Nature Conservancy has 53 years of experience in acquiring land with private and government funds. The Project team in San Diego has the full complement of expertise

needed to initiate and complete the SMCFPC including science, government relations, real estate acquisition and project management. The Regional Office team in San Francisco will provide financial, legal and management support to ensure that the project objectives are achieved.

E. Coordination and cooperation with other projects, partner agencies, and affected organizations and individuals (80)

1. List cost sharing and in-kind partners and any other stakeholders involved with your project and indicate the nature of their contribution, if any. Address the team's ability to leverage outside funds.

US Fish and Wildlife Service: Providing funding, including a $660,000 Section 6 (Co-op Endangered Species Act) grant for the purchase of the Cagney Trust property; and technical support regarding endangered species issues in the Wildlife Area.

CA Department of Fish and Game: Considering grants of as much as $1.5 million in Props 40 and 50 funding, through the Wildlife Conservation Board, for the purchase of the Cagney Trust property; and technical support regarding endangered species and hunting issues in the Wildlife Area.

Army Corps of Engineers: Providing technical support regarding Clean Water Act issues and former military uses (Ramona Bombing Target) in the Wildlife Area.

City of San Diego, Water Utilities Department: Providing technical support regarding water quality and water supply issues in the Wildlife Area.

County of San Diego, Parks: Providing technical support regarding recreation and management concerns in the Wildlife Area.

County of San Diego, Department of Public Works: Providing technical support regarding roads and airport uses in the Wildlife Area.

County of San Diego, Planning and Land Use: Providing technical support regarding land use planning and multiple species conservation issues in the Wildlife Area.

Wildlife Research Institute: Providing technical support regarding habitat and wildlife (especially raptors) matters in the Wildlife Area.

State Water Resources Control Board: Providing $1.5 million in Prop 13 funding to the County of San Diego, Parks, to preserve and restore at least 1.5 miles of the Santa Maria Creek corridor.

CA State Parks: Providing technical support regarding the Native American Cultural sites in the Wildlife Area.

San Pasqual Band of Mission Indians: Providing technical support regarding the Native American Cultural sites in the Wildlife Area.

Property Owners**:** Providing information about their goals in the Wildlife Area.

Ramona Community Planning Group: Providing community-level support for the implementation of the Wildlife Area.

2. Does your project overlap with or complement ongoing activities being carried out by others (such as CALFED, the Sacramento and San Joaquin River Basins Comprehensive Study, the Delta levee program, local floodplain management programs, the Reclamation Board's Designated Floodway program, or a multiple objective regional or watershed plan)? If so, indicate any coordination that has taken place to date or is scheduled to take place in the future.

Yes. The SMCFPC complements the City of San Diego's efforts to improve the quality of the Lake Hodges reservoir by diverting upstream runoff. It also would complement the developing watershed plan for the San Dieguito watershed.

3. Will this application, if approved, begin the next phase of a previously approved project or advance an ongoing project substantially toward completion?

Yes. The SMCFPC will complement the implementation of: the Wildlife Area (especially the restoration of the Santa Maria Creek across the Cagney Trust property to be funded with Proposition 13 funds) and the Multiple Species Conservation Program.

4. Describe how the proposal demonstrates a coordinated approach among affected landowners, local governments, and nonprofit organizations. If other entities are affected, is there written support for the proposal and a willingness to cooperate?

The Wildlife Area is, in effect, a conservation blueprint for the Santa Maria Valley. This effort has received widespread support from property owners, community leaders, state, local and federal agencies and non-profit organizations. The SMCFPC, as a subset of the Wildlife Area, will showcase a model approach to addressing a multitude of complex issues in a coordinated manner. See support letters in *Appendix VI.*

* * * * *

Thank you for taking the time and effort to fill out this application. Please send one hard copy with required signatures by 3:00 p.m. on February 14th, 2003 to:

Earl Nelson, Program Manager
Flood Protection Corridor Program
Division of Flood Management
1416 9th Street, Room 1641
Sacramento, CA 95814

Please also send an electronic copy by 3:00 p.m. on February 14th, 2003 to:

Bonnie Ross at bross@water.ca.gov